

REMARKS

Rejection of the claims under 35 USC 102:

Claims 5, 7, and 8 have been rejected under 35 U.S.C. 102(e) as being anticipated by Adams et al. (US Patent Publication 20050153926). Applicants have amended claim 5 to obviate the rejection. Specifically, Applicants have amended claim 5 to recite reaction of a hydrophobic amines or hydrophobic alcohols with anhydride monomers in the polymer. Support for the amendment can be found in the specification on page 4 line 24 to page 5 line 6. It is the Applicants' opinion that Adams et al. teach only hydrophobic ethylene-containing groups or hydrophobic ethylene-reactive groups (paragraphs 57-58, see also paragraphs 48, 70). Further, Adams et al. does not teach direct hydrophobic modification of a styrene-maleic anhydride random copolymer or butyl vinyl ether-maleic anhydride alternating copolymer. Rather, Adams et al. teaches only activating a framework component (polymer) by means of an activating group and subsequently reacting with a group that includes a group that is reactive with the ethylene-derivatized nucleic acid (paragraph 90). Adams et al. further teach that activating the polymer consists of derivatizing the polymer with groups capable of undergoing reactions with nucleophiles or electrophiles (paragraph 91). Applicants request reconsideration of the rejection.

Rejection of the claims under 35 USC 103:

Claims 5, 7, 8, 12, 16, and 17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Tonge et al (US Patent 6,436,905) in view of Maeda et al (US Patent 4,732,933). Applicants respectfully disagree. Tonge et al. teach that the synthetic amphipathic polymer with which it is combined will have a balance of hydrophobic and anionic hydrophilic groups evenly arranged along a linear backbone. Tonge et al. further teach the hydrophobic and anionic hydrophilic groups are alternating and that this arrangement is an *essential* feature in the formation of a coil with an amphipathic character such that one facet is hydrophobic and one is hydrophilic: "the solubilizing synthetic amphipathic polymers specified will generally adopt a helical coil configuration with the hydrophobic side groups presented along one facet and the anionic hydrophilic groups presented along the opposite facet. Tonge et al. state that this feature cannot generally be achieved in copolymers which are produced by other means (column 6 line 64 to column 7 line 34). "Reacting hydrophobic

amines or hydrophobic alcohols with anhydride monomers in the copolymer" according to the Applicants' claims, destroys the balance of hydrophobic and anionic hydrophilic groups evenly arranged along the polymer as is required by Tonge et al. Further, the Applicants' polymer no longer has a configuration of hydrophobic side groups presented along one facet and the anionic hydrophilic groups presented along the opposite facet. Reaction of hydrophobic groups with anionic monomers positions hydrophobic groups on the anionic facet. Applicants request reconsideration of the rejection.

Claims 12, 16, and 17 have been rejected under 35 U.S.C. 103(a) as being anticipated by Adams et al. in view of Tonge et al. It is the Applicants opinion that the amendments and arguments made in response to the 102 rejection over claims 5, 7, and 8 are sufficient to overcome the 103 rejection over claims 12, 16, and 17.

Support for new claims 21 and 22 can be found in the specification on page 7 lines 25-29.

The Examiner's objections and rejections are now believed to be overcome by this response to the Office Action. In view of Applicants' amendment and arguments, it is submitted that claims 5, 7, 8, 12, 16-17 and 21-22 should be allowable.

Respectfully submitted,

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I hereby certify that this correspondence is being transmitted to the USPTO on this date: October 9, 2007.

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